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The Significance of Population Factors
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CHAPTER III

THE SIGNIFICANCE OF POPULATION FACTORS

IT IS one thing to demonstrate that cities are different with respect to moral integration; it is quite another to determine what the causal factors are. In the first place, there are so many influences working in one of our large cities that the task might appear a hopeless one. Cities differ in size, in age, in the backgrounds of their populations, in their religious makeup, in the stability of residence of their inhabitants, in their standards of living, in the proportions of the labor force in different occupations, in the kinds of organizations developed locally, in the quality of community leaders —to name only a few of the more obvious factors. Second, there is the problem of whether a particular feature, even if shown to be related to moral integration, is cause or effect of that integration. For instance, it can be argued that the organizations possessed by a city are influenced by the degree of solidarity of the community as well as being a cause of that solidarity. In meeting both of these difficulties one obtains much help from existing theory. This enables the research worker to select from the host of variables that present themselves for possible study those which are most likely to give significant results. Theory also helps one to assess the probability that a factor that varies with moral integration is cause or effect.

One of the best-established generalizations of the sociologist is that social problems tend to multiply, not only absolutely but relatively, with increase in community size. It is evidently more difficult to maintain a satisfactory social order over a large number of people than over a small number. This principle agrees with everyday observation. Indeed, the longing for "the good old days" is largely a nostalgia for the simple, small community where the pattern of life was well ordered. Although in towns and villages there may be unfriendly gossip about neighbors and even occasional overt violence, there are rarely organized centers of corruption. Tocqueville painted a glowing picture of such American communities about 1835 in his *Democracy in America*. Probably his account is unduly laudatory, but it does underline the solid virtues of the small town.

In view of the testimony both of science and of common observation, it is a distinct surprise to find that, once a population of 100,000 is passed, size is not negatively related to moral integration. If we take crime as a measure, we can see from Table 7 that there is a fairly steady loss of integration with increasing city size below 100,000. But above that figure crime trends are irregular. One explanation for this leveling-off of crime rates would be that all the evils of the largest cities are already present in the 100,000–250,000 group. Another possibility is that the cities above 250,000 are on the average older than those in the next

TABLE 7*

OFFENSES KNOWN TO THE POLICE
(Rates per 100,000 Population)

SIZE OF CITIES	MURDER AND NON-NEGLIGENT MANSLAUGHTER		ROBBERY		BURGLARY	
	1947	1940	1947	1940	1947	1940
More than 250,000	7.11	6 1	85.7	74 7	450.6	397.3
250,000–100,000..	7.71	6.5	68 9	50 8	508.3	418.4
100,000– 50,000..	6 30	5.7	43.0	37.8	392.3	364 8
50,000– 25,000..	4.14	3.4	32.3	32.2	343.8	313 5
25,000–10,000.....	4.30	3.9	27.1	23.3	295.1	253.7
Less than 10,000...	4.33	4.1	24.8	22.2	248.2	234.1

* Source: Uniform crime reports of the Federal Bureau of Investigation.

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group and that greater maturity is a positive influence which is just about offsetting the negative influence of larger size.

Since the Crime Index is the principal constituent of the Integration Index in the second study, size of city was dropped as a causal factor as soon as it was discovered that the correlation of crime with size was only −.06 for the forty-three cities—a random relationship.

TABLE 8

RATIO OF NATIVE-BORN WHITES TO NONWHITES IN FOURTEEN "CONSISTENT" CITIES, GROUPED ACCORDING TO LEVELS OF MORAL INTEGRATION

Well integrated:	
Milwaukee	49.7
Syracuse	82.2
Springfield (Mass.)	34.6
Providence	31.4
Mean	49.5
Moderately integrated:	
Hartford	16.8
Bridgeport	29.1
Canton	28.1
Dayton	10.1
Kansas City (Mo.)	7.9
Mean	18.4
Poorly integrated:	
Houston	2.6
Columbus (Ohio)	7.3
Dallas	4.7
Birmingham	1.6
Atlanta	1.9
Mean	3.6

Although Thorndike had found income to be significant for the goodness of a community, experimentation with his data in my first study had not convinced me of its significance for moral integration. In the second study I used the per capita retail sales of each community as a measure of its level of income and found that the correlation with moral integration was zero. Hence a second hypothetical cause was proved worthless for our purposes and banished from the study.

The conclusion that the economic factor is unimportant for moral integration may well surprise the layman. He is so likely to think that all the good things of life are dependent upon the possession of money that it may be a shock to learn that this is not so. However, the cultural anthropologist will not be surprised. His contact with primitive peoples has made him aware that social solidarity is a result of quite other forces. As a matter of fact, it has been argued by sociological historians that the higher standard of living that has come with increasing division of labor has actually served to lessen social cohesion by expanding the opportunities for individualistic consumption of economic goods and services.

Both the layman and the sociologist would expect that, the more the population of an American city is a mixture of races and nationalities, the greater the difficulties of moral integration. In the first study I obtained striking confirmation of this generalization from the analysis of Thorndike's data on the fourteen "consistent" cities. Table 8 shows the ratio of native-born whites to nonwhites for the well-integrated, moderately integrated, and poorly integrated cities. This ratio was used as an index because it was felt that the foreign-born whites constitute a middle category the members of which deserve to be in neither the numerator nor the denominator. The striking thing about this series is that there is no overlapping of scores among the three groups of cities. Since the ratio of native-born whites to nonwhites in a city can hardly be attributed to that city's moral integration, the inference is strong that heterogeneity of population is a negative factor causally related to moral integration.

In my second study I followed up this clue. I constructed a new index of heterogeneity as follows:

$$\text{Heterogeneity} = \frac{\text{Foreign-born whites} + 2\,(\text{Nonwhites})}{.01\,(\text{Total population of city})}$$

It was assumed on the basis of American sociological findings that it is twice as

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difficult to integrate a member of another race into a community chiefly made up of native-born whites as it is to integrate a foreign-born white into that community. Later work with these data indicate that it is actually three times as difficult to do so.

The heterogeneity scores are given in the second column of Table 9. They tend to rise as integration falls, in accordance with our hypothesis. The correlation coefficient between the two series is −.59. This is a fairly significant relationship. Since the real meaning of such a coefficient is more accurately expressed by its square, this one signifies that 35 per cent of the variation in moral integration can be laid to differences among the cities in their heterogeneity. This does not prove that different races and nationality groups in a population always affect moral integration unfavorably. Where there is racial tolerance, as in Brazil, or where the government has made strong efforts to overcome the prejudices of nationalities toward one another, as in Russia, heterogeneity may not be a handicap to moral integration.

There is a great deal of support in sociological studies for the proposition that the movement of population makes for disorder. Solidarity can be more easily maintained in a stable group than in one with a high turnover of members. We should therefore expect that the shift of residents into or out of a community would lessen moral integration. This hypothesis can be tested by the data for in- and out-migration between 1935 and 1940 gathered by the United States Census in 1940. For all cities of more than 100,000 the number of persons living in each city who lived elsewhere in 1935 and the number of persons living elsewhere in 1940 who lived in each city in 1935 were tabulated. By adding the percentage of in-migrants to the percentage of out-migrants we obtain a rough measure of the total movement during the five years. This we call the Mobility Index. The mobility scores for our forty-three cities are given in the third column of Table 9.

Casual inspection shows that there is a tendency for the mobility scores to increase as the integration scores fall. As expressed in a correlation coefficient, this relation is −.49. This signifies that about one-quarter

TABLE 9

MORAL INTEGRATION AND CAUSAL FACTORS FORTY-THREE CITIES OF MORE THAN 100,000

City	Integration Index	Heterogeneity Index	Mobility Index
Rochester	19.0	20.6	15.0
Syracuse	17.0	15.6	20.2
Worcester	16.4	22.1	13.6
Erie	16.2	14.0	14.8
Milwaukee	15.8	17.4	17.6
Bridgeport	15.3	27.9	17.5
Buffalo	15.2	22.3	14.7
Dayton	14.3	23.7	23.8
Reading	14.2	10.6	19.4
Des Moines	14.1	12.7	31.9
Cleveland	14.0	39.7	18.6
Denver	13.9	13.0	34.5
Peoria	13.8	10.7	35.1
Wichita	13.6	11.9	42.7
Trenton	13.0	32.5	15.8
Grand Rapids	12.8	15.7	24.2
Toledo	12.7	19.2	21.6
San Diego	12.5	15.9	49.8
Baltimore	12.0	45.8	12.1
South Bend	11.8	17.9	27.4
Akron	11.3	20.4	22.1
Detroit	11.1	38.3	19.5
Tacoma	10.9	17.8	31.2
Richmond	10.4	65.3	24.9
Houston	10.3	49.0	36.1
Fort Worth	10.2	30.5	36.8
Flint	9.8	19.3	32.2
Oklahoma City	9.7	20.7	47.2
Spokane	9.6	12.3	38.9
Chattanooga	9.3	57.7	27.2
Seattle	9.0	23.9	34.2
Indianapolis	8.8	29.2	23.1
Nashville	8.6	57.4	25.4
Birmingham	8.2	83.1	25.9
Columbus	8.0	27.4	25.0
Dallas	8.0	36.8	37.8
Louisville	7.7	31.5	19.4
Portland (Ore.)	7.2	16.4	35.8
Jacksonville	6.0	73.7	27.7
Memphis	5.4	84.5	26.7
Tulsa	5.3	23.8	44.9
Miami	5.1	50.2	41.8
Atlanta	4.2	70.6	32.6

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of the variation in integration among the cities is attributable to the differing degrees of mobility of their populations.

When the two factors of heterogeneity and mobility are correlated with each other, the coefficient is found to be −.06. This may seem odd when it is recalled that both series tend to rise as integration falls. However, careful inspection of Table 9 will reveal that the southern cities, where heterogeneity scores are high, have rather low mobility scores, while the northern cities have high mobility scores and fairly low heterogeneity scores. Because these two factors are independent of each other, their multiple correlation with integration is −.79. Translated into layman's language, this means that 63 per cent of the variance in integration among the forty-three cities is accounted for by these two factors.

This result is very gratifying, since it is not often in social research that so much of the variation of an abstract characteristic like moral integration can be attributed to so few factors. The important question still remains, however: To what is the remainder of the variation in integration due? Five other possibilities had occurred to me by the time I had finished working with heterogeneity and mobility. These factors were: the rate of growth of the city, the proportion of absentee-owned to locally owned businesses, the proportions of the population adhering to various religious denominations, the proportion of married women working, and the pattern of social classes in the community.

Although I realized that the rate of growth of a city would probably be associated with the mobility index already computed because the in-migrants between 1935 and 1940 would be important to both, I thought it worth while to determine whether the rate over a longer period might not be independently significant. The hypothesis was simply that integration is easier the more slowly newcomers are added to the aggregate. The percentage growth between 1920 and 1940 was taken as the index. This was found to correlate −.43 with integration, but, when it was added to mobility and heterogeneity, the multiple correlation with integration was not improved over the −.79 previously obtained. This can be attributed to the fact that the rate of growth was positively related both to mobility (+.53) and to heterogeneity (+.27), so that its influence is expressed through those two variables.

The hypothesis that absentee ownership of industry might have something to do with integration was derived from the *Report of the Smaller War Plants Corporation to the Special Committee To Study Problems of American Small Business* (79th Cong., 2d sess.; Senate Doc. No. 1350). It was there suggested that cities in which small businesses predominate will have more civic enterprise than cities in which large businesses predominate because of a greater number of "independent" businessmen in the former who are not oriented to the head offices elsewhere of giant corporations. The index suggested was the ratio of proprietors, firm members, and officials of corporations to the total nonwage-working employees as indicated by the 1939 Census of Manufactures. In absentee-owned plants this index would be low, since the local executives would be counted as nonwage-working employees, not as officials of the corporation. The correlation of the ratio with my Integration Index, however, proved to be negative rather than positive and to be substantial: −.46. And the correlation remained the same even when a correction was made to include all businesses as well as manufactures. This surprising result is probably a consequence of the greater frequency of small businesses in mobile and heterogeneous communities rather than of any direct causal influence of large businesses on integration. An any rate, it is clear that the scale of enterprise is not closely related to moral integration, as the congressional committee supposed.

Sociological theory and popular belief agree in assigning positive importance to religious values in the moral integration of the community. The last Census of Religious

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Bodies, taken in 1936, was used to investigate this matter. I tried out two hypotheses. One was that the larger the proportion of church members in the community, the better the integration. Another was that the larger the ratio of Catholics to all church members, the better the integration—on the theory seemingly proved by Durkheim in the case of suicide that Protestants are more individualistic in their outlook. Neither of these hypotheses was substantiated by the facts, and I therefore abandoned church membership as a factor in moral integration. Thorndike reached similarly negative conclusions. He states: "On the whole, unless the better communities under-report their church membership or the worse communities over-report theirs, we must suspect that churches are clubs of estimable people and maintainers of traditional rites and ceremonies rather than powerful forces for human betterment."[1]

This result will surprise many readers, who are perhaps aware of the role that religion plays in their own lives. One possible explanation is that the statistics are for church membership, not for degree of participation. If figures for the latter were obtainable, they might well show a significant relation to a city's moral integration.

Another clue from my first study that seemed worth following up was the possibility that the proportion of married women gainfully employed was causally significant for the moral integration of the city. In Table 10 are shown the figures given in Thorndike's study for the three groups among the fourteen "consistent" cities. Although there is considerable overlapping of scores among these groups, there is enough of a trend to suggest the hypothesis that the working of married women is detrimental to the moral integration of a community. However, caution is necessary here. The proportions may be effect of moral integration as well as cause. Where there is not much sense of civic responsibility, mothers may pay less attention to the upbringing of their children. Despite this, I felt that the matter should be explored with reference to the forty-three cities of my second study. It turned out that there was a negative correlation between this factor and integration of −.54 but that the positive correlations of this factor with heterogeneity and mobility were so great—+.67 and +.21, respectively—that the addition of this factor to the other two did not raise the multiple correlation of −.79 already established between those two and moral integration. Undoubtedly the chief reason for the close correspondence of the series on the employment of married women with that on heterogeneity is the fact that Negro wives are employed proportionately much more often than white wives. The effect of wives working, therefore, is already taken into account through our other two causal factors.

TABLE 10

MARRIED WOMEN GAINFULLY EMPLOYED PER 1,000 POPULATION, CORRECTED FOR SEX RATIO, FOR FOURTEEN "CONSISTENT" CITIES GROUPED ACCORDING TO LEVELS OF MORAL INTEGRATION

Well integrated:	
Milwaukee	25.1
Syracuse	30.2
Springfield (Mass.)	28.1
Providence	22.9
Mean	26.6
Moderately integrated:	
Hartford	33.0
Bridgeport	28.9
Canton	21.4
Dayton	36.5
Kansas City (Mo.)	45.4
Mean	33.0
Poorly integrated:	
Houston	50.7
Columbus (Ohio)	40.1
Dallas	52.8
Birmingham	39.6
Atlanta	56.4
Mean	49.9

A hypothesis that to a sociologist obvi-

[1] *Your City*, p. 99.

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ously merits testing is that cities that have a larger middle class to mediate between the extremes in social status will have higher moral integration than those that have fewer in the middle class. It would appear almost axiomatic that, the smaller the mediating group, the greater the likelihood of severe friction between the upper and lower groups.

I first tried to test this hypothesis with census figures on occupations. In the attempt to get at the relative size of the mediating group in each city, I used both the percentage of clerical workers and, later, the combined percentage of clerical workers and skilled manual workers. Although small proprietors certainly deserve to be in the middle class too, as well as many professionals, there is no way to separate them out satisfactorily. The two series that I did compare with the integration scores showed no tendency whatever to validate the hypothesis. Cities that were well integrated seemed just as likely to have small as large middle groups.

This result seemed so inconsistent with accepted sociological doctrine that I tried again, this time using figures on rentals rather than occupations. The index for each city was what is known as a coefficient of variation. This gives a measure of the relative degree of dispersion in rentals for each city. Thus a city that had unusually large proportions of its population at the extremes of wealth and poverty would have a high score, while a city in which a disproportionate share of the families were near the rental average would have a low one. The correlation with moral integration proved to be very high: −.65. This was the best simple correlation yet obtained, and I therefore hoped that the addition of this factor to heterogeneity and mobility would raise the multiple correlation above the −.79 previously recorded. However, this hope was in a large measure disappointed. The relations of rental spread to heterogeneity and mobility (respectively, +.71 and +.28) were such that the multiple correlation of the three factors with moral integration turned out to be only −.80, a negligible improvement over the former figure. What this means is that income spread, though an important causal factor in moral integration, is already represented pretty completely in heterogeneity and mobility. On the scientific principle of parsimony, it is better to regard the latter two as the principal causes, since no combination of three causes accounts for significantly more of the variance in moral integration than do these two alone, and no other combination of two causes accounts for as much.

Of the nine variables that had been tested for their causal relation to moral integration in cities of more than 100,000,

TABLE 11

POPULATION FACTORS AND MORAL INTEGRATION

Variable	With Integration		With Mobility		With Heterogeneity	
	r	σ_r	r	σ_r	r	σ_r
Mobility	−.49	.12				
Heterogeneity	−.59	.10	−.06	.15		
Rate of growth	−.43	.12	+.53	.11	+.27	.14
Percentage of married women working	−.54	.11	+.21	.15	+.67	.08
Rental spread	−.65	.09	+.28	.14	+.71	.08
Mobility and heterogeneity	−.79	.06				
Mobility, heterogeneity, and percentage of married women working	−.79	.06				
Mobility, heterogeneity, and rental spread	−.80	.05				

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four had proved to have no significance—size, income level, church membership, and percentage of small businessmen among all businessmen. Five had shown definite relationship to moral integration—heterogeneity, mobility, rate of city growth, percentage of married women working, and rental spread. The correlations of these with moral integration and with one another, together with the standard deviations of the several correlation coefficients, are shown in Table 11. Of the five, heterogeneity and mobility appear to be the key factors in the sense that the influence of the others is almost completely included in the influence of these two.

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